

method of Rajagopal *et al.* (1995, *Int. J. Cancer* 62: 661-667), herein incorporated by reference in its entirety, or by the method of Dahiya *et al.* (1996, *Urology* 48: 963-970), herein incorporated by reference in its entirety.

Amplification oligonucleotide primers are selected to be specific for amplifying the nucleic acid of interest. In a preferred embodiment, amplification is performed by RT-PCR, wherein oligonucleotide primers are based upon gene or cDNA sequences using methods known to the art. In preferred embodiments, preferred oligonucleotide primers have nucleotide sequences as follows:

For epidermal growth factor (EGF) mRNA RT-PCR, the preferred primers are those as described by Rajagopal *et al.* (1995, *Int. J. Cancer* 62: 661-667), herein incorporated by reference in its entirety, wherein EGF primers (commercially available from Clontech, Palo Alto, California) have the sequence

5' TCTCAACACATGCTAGTGGCTGAAATCATGG (5' Primer; SEQ ID No. 1)

5' TCAATATACATGCACACACCATCATGGAGGC (3' Primer; SEQ ID No. 2).

For EGF mRNA RT-PCR, other preferred primers are those as described by Dahiya *et al.* (1996, *Urology* 48: 963-970), herein incorporated by reference in its entirety, wherein primers for PCR

of EGF cDNA have the sequence

5' TCTCAACACATGCTAGTGGCTGAAATCATGG (Sense; SEQ ID No. 3)

5' TCAATATACATGCACACACCATCATGGAGGC (Antisense; SEQ ID No. 4)

It is further to be understood that other primers for amplification of EGF cDNA or mRNA as determined using methods of the art are suitable for use in the invention, for example but not limitation primers described by LeRiche *et al.* (1996, *J. Clin. Endocrinol. Metab.* 81: 656-662), or Pfeiffer *et al.* (1997, *Int. J. Cancer* 72: 581-586), these references incorporated herein by reference in their entirety.

For epidermal growth factor receptor (EGFr) mRNA RT-PCR, the preferred primers are those described by De Luca *et al.* (2000, *Clin. Cancer Res.* 6: 1439-1444), herein incorporated by reference in its entirety, wherein primers for nested PCR of EGFr cDNA have the sequences:

Primer A: 5' TCTCAGCAACATGTCGATGG (SEQ ID No. 5)

Primer B: 5' TCGCACTTCTTACACTTGCG (SEQ ID No. 6)

Primer C: 5' TCACATCCATCTGGTACGTG (SEQ ID No. 7)

It is further to be understood that other primers for amplification of EGFr cDNA or mRNA as determined using methods of the art are suitable for use in the invention, *for example*, primers described by LeRiche *et al.* (1996, *J. Clin. Endocrinol. Metab.* 81: 656-662) and by Dahiya *et al.* (1996, *Urology* 48: 963-970), these references herein incorporated by reference in their entirety.

It is further to be understood that primers for amplification of altered, rearranged, deleted or splice mutated, or otherwise mutated EGFr gene mRNA or cDNA as determined using methods known to the art are suitable for use in the invention, whereby said mRNA is thereby detected in a bodily fluid, *for example* by using the primers as described by Schlegel *et al.* (1994, *Int. J. Cancer* 56: 72-77) or by Worm *et al.* (1999, *Hum. Pathol.* 30: 222-227), these references herein incorporated by reference in their entirety.

For her-2/neu mRNA RT-PCR, the preferred primers are those described Pawlowski *et al.* (2000, *Cancer Detect. Prev.* 24: 212-223), herein incorporated by reference in its entirety, wherein primers for conventional PCR of her-2/neu cDNA have the sequence:

5' GAGACGGAGCTGAGGAAGGTGAAG (Sense; SEQ ID No. 8)

5' TTCCAGCAGGTCAGGGATCTCC (Antisense; SEQ ID No. 9)

and wherein primers for real-time quantitative RT-PCR using a TaqMan fluorogenic probe (Perkin-Elmer) have the sequence:

5' CAACCAAGTGAGGCAGGTCC (Sense; SEQ ID No. 10)

5' GGTCTCCATTGTCTAGCACGG (Antisense; SEQ ID No. 11)

5' AGAGGCTGCGGATTGTGCGA (TaqMan probe; SEQ ID No. 12)

wherein the TaqMan probe contains a 5' FAM (6-carboxy-fluorescein) reporter dye and a 3' TAMRA (6-carboxy-tetramethyl-rhodamine) quencher dye and a 3' phosphate.

It is further understood that other primers for amplification of her-2/neu cDNA or mRNA are suitable for use as designed using methods known to the art, for example but not limitation primers described by Walch *et al.* (2001, *Lab. Invest.* 81: 791-801), Sarkar *et al.* (1993, *Diagn. Mol. Pathol.* 2: 210-218), Gebhardt *et al.* (1998, *Biochem. Biophys. Res. Comm.* 247: 319-323), Revillion *et al.* (1997, *Clin. Chem.* 43: 2114-2120), or Schneeberger *et al.* (1996, *Anticancer Res.* 16: 849-852), these references incorporated herein by reference in their entirety.

For c-myc mRNA RT-PCR, the preferred primers are those described by Kraehn *et al.* (2001, *Br. J. Cancer* 84: 72-79), herein incorporated by reference in its entirety, wherein primers for PCR of c-myc cDNA are commercially available (Stratagene, Heidelberg, Germany), and have the sequence